

**SEIZURE SENSING AND DETECTION USING AN IMPLANTABLE DEVICE**

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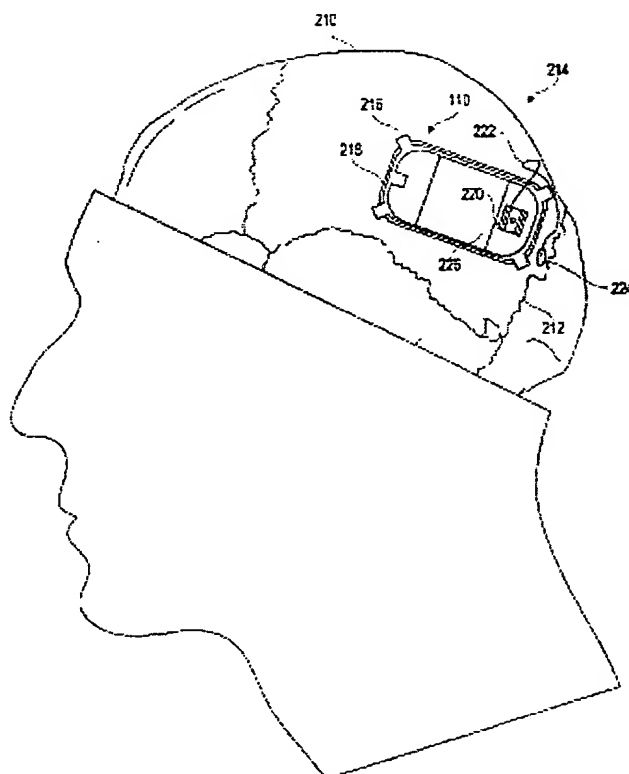
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**Abstract of CA2456443**

A system and method for detecting and predicting neurological events with an implantable device (110) uses a relatively low-power central processing unit (428) in connection with signal processing circuitry (422) to identify features (including half waves) and calculate window-based characteristics (including line lengths and areas under the curve of the waveform) in an electrographic signal received from a patient's brain. The features and window-based characteristics are combinable in various ways according to the invention to detect and predict neurological events in real time, enabling responsive action by the implantable device.



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